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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/870,180	05/30/2001	Kenneth L. Smith	54538USA9B011	7800

32692 7590 04/20/2004

3M INNOVATIVE PROPERTIES COMPANY
PO BOX 33427
ST. PAUL, MN 55133-3427

EXAMINER	
GOFF II, JOHN L	

ART UNIT	PAPER NUMBER
1733	

DATE MAILED: 04/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action	Application No.	Applicant(s)	
	09/870,180	SMITH ET AL.	
	Examiner	Art Unit	
	John L. Goff	1733	

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 15 March 2004 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.

b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.
ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.

2. ☐ The proposed amendment(s) will not be entered because:

   (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);

   (b) ☐ they raise the issue of new matter (see Note below);

   (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

   (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

   NOTE: _____.

3. ☐ Applicant's reply has overcome the following rejection(s): _____.

4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

5. ☒ The a)☐ affidavit, b)☐ exhibit, or c)☒ request for reconsideration has been considered but does NOT place the application in condition for allowance because: *See Continuation Sheet*.

6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.

7. ☒ For purposes of Appeal, the proposed amendment(s) a)☐ will not be entered or b)☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

   The status of the claim(s) is (or will be) as follows:

   Claim(s) allowed: _____.

   Claim(s) objected to: _____.

   Claim(s) rejected: *22-36*.

   Claim(s) withdrawn from consideration: _____.

8. ☐ The drawing correction filed on _____ is a)☐ approved or b)☐ disapproved by the Examiner.

9. ☐ Note the attached Information Disclosure Statement(s)(PTO-1449) Paper No(s). _____.

10. ☐ Other: _____

Continuation of 5. does NOT place the application in condition for allowance because:

Applicant argues, "With respect to Chau et al, the Examiner has argued that: 1. Chau et al discloses the use of radiation curable adhesives in retroreflective articles. See the Office Action mailed 01/15/2004 at page 7, numbered paragraph 7. This is not the case. A previously stated by Applicants, Chau et al. only teaches the use of an optically transparent material. Chau et al. is silent with regard to the use of adhesive." It is noted this argument was addressed in the Office Action mailed on 01/15/2004 at page 7, numbered paragraph 7 and is reiterated here. Chau discloses "Referring now to FIG. 1E, the next step in the sequence of procedures is to deposit an index matching fluid 50 on top of coating 40. Index matching fluid 50 can be any material that is at least partially transmissive. For example, index matching fluid 50 can be an acrylic based epoxy for the purpose of providing clarity. Index matching fluid 50 can be a mixture of two or more components. It is preferred that the index matching fluid 50 be a UV curable fluid. Referring now to FIG. 1F, the next step in the sequence of procedures is to contact index matching fluid 50 with substrate 60". Thus, Chau teaches that the index matching fluid is used to bond substrate 60 with the coating 40, the index matching fluid may be acrylic based epoxy, and the index matching fluid is preferably UV curable. One of ordinary skill in the art would readily appreciate that an "index matching fluid" having these characteristic is an adhesive.

Applicant further argues, "With respect to Chau et al, the Examiner has argued that: 2. Chau et al teaches that any type of surface topography may be substituted for the isosceles triangular prisms it teaches and that it therefore requires that one of ordinary skill in the art choose a surface topography having high reflective efficiency. See the Office Action mailed 01/15/2004 at page 7, numbered paragraph 7. Substitution of a retroreflective surface for the reflective surface of Chau et al. is not appropriate. As already established by Applicants in their previous response, the use of a retroreflective structure would be contrary to the aim of Chau et al. See page 6, third and fourth paragraph of the response mailed October 3, 2003. Thus the replacement of the continuous peaks of Chau et al. with cube corner cavities, a discontinuous feature, would be contrary to the teachings of Chau et al. In fact, the substitution would not provide high reflective efficiency as proposed by the Examiner. To the contrary, the substitution would reduce the level of reflected light. It is noted this argument was addressed in the Office Action mailed on 01/15/2004 at page 7, numbered paragraph 7 and is reiterated here. Chau discloses "It should be noted that the surface topography is represented in FIG. 1A as a periodic series of isosceles triangular prisms for improved clarity. Although the preferred embodiment shown in FIG. 1A includes the periodic series or isosceles triangular prisms, it is well within the level of ordinary skill in the art after having knowledge of the invention disclosed herein to substitute any other type of surface typography." Thus, Chau requires one of ordinary skill in the art to choose a surface topography having high reflective efficiency. Stamm discloses a surface topography (cube-corner cavities) having high reflective efficiency such that the combination of Stamm with Chau is appropriate.

Applicant further argues, "With respect to Chau et al, the Examiner has argued that: 3. One of ordinary skill in the art would have appreciated that when the "adhesive" of Chau et al were applied to its structured surface some air would be trapped in the cavities and that the cavities would be incompletely filled resulting in a later settling of the adhesive. See the Office Action mailed 01/15/2004 at pag 4, last full paragraph. Carrying out the process of the invention is more than just using less than the required amount of fill material necessary to completely fill the cavities." Applicants claims are not commensurate in scope with this argument.

Applicant further argues, "The Examiner argues that it would be obvious to cure/crosslink the curable composition prior to applying the structured surface because this would reduce the time required for curing after its application and thereby improve production efficiency. This is simply incorrect. Partially curing the curable material would not be thought to work. As stated in the previous section when the cavities are filled, gas is trapped in them. As the gas diffuses into the curable material, the void shrinks and the curable material replaces the shrinking void. When the curable material is cured or crosslinked, it becomes less mobile. That is its ability to flow is reduced. As a result, it is surprising that polymerizing the flowable composition to at least 95% during the second step would work." I is noted one of ordinary skill in the art readily appreciates that partially curing the adhesive does not completely reduce its ability to flow, and it would have been obvious to one of ordinary skill in the art to apply the adhesive in a partially cured state to reduce the time required to produce an article. Furthermore, the claims allow for curing to occur when the adhesive is applied, i.e. the claims do not explicitly require the curing to occur before application, such that Chau et al. is seen to meet the limitation.

Applicant further argues, "With respect to Stamm, the Examiner has argued that: 2. Stamm teaches that the cube corner cavities are separated on their top surface. As the basis for this assertion, the Examiner cites Figure 1; Col. 2, line 3-13; Col. 3, lines 35-55; Col. 5, lines 8-14; and Col. 6, lines 38-45 of Stamm. Applicants challenge this assertion. Stamm does not teach this separation and none of the citations relied upon by the Examiner support his position." Figure 1 of Stamm clearly shows cube corner cavities separated on their top surface.

John L. Goff
571-272-1216

JEFF H. AFTERGUT
PRIMARY EXAMINER
GROUP 1300